

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-37 (Canceled)

B.1
38. (Currently amended) A microphone comprising:
a diaphragm;
a backplate opposing said diaphragm;
a spacer element positioned adjacent said diaphragm for maintaining an appropriate spacing between said diaphragm and said backplate;
a housing having first, second, and third interacting sound chambers, said first sound chamber being substantially defined by walls of said housing and said diaphragm, said second sound chamber being substantially defined by said diaphragm, said backplate, and said spacer element, said third sound chamber being substantially defined by said backplate and walls of said housing; and
at least one aperture having a distal end and a proximate end, said distal end of said aperture being adjacent said second sound chamber and bounded at least partially by said backplate, said proximate end being adjacent said third sound chamber and bounded at least partially by a structure other than said backplate, defined by at least one of said backplate and said spacer element, said aperture connecting said second and third sound chambers and having selected dimensional characteristics for dampening a frequency response curve for said microphone.

2
39. (Original) The microphone of claim 38, wherein the relative size of said sound chambers in increasing order from smallest to largest is said second sound chamber, said first sound chamber, and said third sound chamber.

3
40. (Original) The microphone of 38, wherein said at least one aperture is exactly one aperture.

4
41. (Original) The microphone of ~~38~~¹, wherein said at least one aperture is exactly two apertures.

5
42. (Original) The microphone of ~~38~~¹, wherein said at least one aperture is at least two apertures.

6
43. (Original) The microphone of ~~38~~¹, wherein said at least one aperture is exactly four apertures.

7
44. (Original) The microphone of ~~38~~¹, wherein said at least one aperture has a length of about 0.5 mm and a width of about 0.5 mm.

B1
8
45. (Original) The microphone of claim ~~44~~⁷, wherein said at least one aperture has a thickness of at least about 50 microns.

9
46. (Original) The microphone of claim ~~44~~⁷, wherein said at least one aperture has a thickness of less than about 37.5 microns.

10
47. (Original) The microphone of claim ~~38~~¹, wherein said dampening reduces said frequency response curve at a range of about 2 kHz to about 10 kHz.

48-58. (Canceled)

11
59. (New) The microphone of claim ~~38~~¹, wherein said housing includes a floor, said diaphragm including a membrane frame and a membrane disposed across a surface of said membrane frame, said membrane frame contacting said floor.

12
60. (New) The microphone of claim ~~38~~¹, wherein said spacer element has an outer perimeter, said spacer element having a clamping member formed along said outer perimeter and contacting an inner portion of said housing, said clamping member holding said spacer element in a fixed position within said housing.

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¹³
~~61~~. (New) The microphone of claim ¹²~~60~~, wherein said spacer element includes an opening, said opening being dimensioned to hold said backplate within said opening.

¹⁴
~~62~~. (New) The microphone of claim ¹³~~61~~, wherein said backplate includes a bottom surface opposing said diaphragm, said bottom surface having at least one standoff disposed thereon, said at least one standoff contacting said diaphragm.

¹⁵
~~63~~. (New) The microphone of claim ¹~~38~~, wherein said housing includes a bottom surface having at least one support member, said diaphragm being mounted on said at least one support member.

B1 ¹⁶
~~64~~. (New) The microphone of claim ¹⁵~~63~~, wherein said support member is an embossment formed by deforming said housing to create a protrusion extending into said inner volume of said housing.

¹⁷
~~65~~. (New) The microphone of claim ¹⁵~~63~~, wherein the bottom surface of said housing includes at least three support members.

¹⁸
~~66~~. (New) The microphone of claim ¹~~38~~, wherein said diaphragm includes a pressure vent for equalizing pressure between said first sound chamber and said second sound chamber.

¹⁹
~~67~~. (New) The microphone of claim ¹~~38~~, wherein said spacer element is made of a polyimide material.

²⁰
~~68~~. (New) The microphone of claim ¹~~38~~, wherein said spacer element is made of Kapton.

²¹
~~69~~. (New) The microphone of claim ¹~~38~~, wherein said backplate has a charged surface opposing said diaphragm.

²²
~~70.~~ (New) The microphone of claim ²⁴~~69~~, wherein said charged surface is Teflon.

²³
~~71.~~ (New) The microphone of claim ¹~~38~~, wherein the thickness of said spacer element is at least about 125 microns.

²⁴
~~72.~~ (New) The microphone of claim ¹~~38~~, wherein the thickness of said spacer element is at least about 50 microns.

²⁵
~~73.~~ (New) The microphone of claim ¹~~38~~, wherein the thickness of said spacer element is less than about 37.5 microns.

²⁶
~~74.~~ (New) The microphone of claim ¹~~38~~, wherein said first sound chamber lacks structure for dampening the frequency response curve of said microphone.

²⁷
~~75.~~ (New) The microphone of claim ¹~~38~~, wherein said structure is said spacer element.

²⁸
~~76.~~ (New) The microphone of claim ¹~~38~~, wherein said aperture is partially plugged by said structure.

²⁹
~~77.~~ (New) The microphone of claim ²⁸~~76~~, wherein said structure is an adhesive.

³⁰
~~78.~~ (New) The microphone of claim ²⁹~~77~~, wherein said adhesive is UV-cured.

³¹
~~79.~~ (New) A method for dampening the frequency response curve of a microphone, comprising:

positioning a spacer element adjacent a diaphragm; and

providing a backplate opposing said diaphragm and a housing having first, second, and third interacting sound chambers, said first sound chamber being substantially defined by walls of said housing and said diaphragm, said second sound chamber being substantially defined

between said diaphragm and said backplate, said third sound chamber being substantially defined by said backplate and walls of said housing,

wherein the step of providing forms at least one aperture having a distal end and a proximate end, said distal end of said aperture being adjacent said second sound chamber and bounded at least partially by said backplate, said proximate end being adjacent said third sound chamber and bounded at least partially by a structure other than said backplate, said aperture connecting said second and third sound chambers and having selected dimensional characteristics for dampening a frequency response curve for said microphone.

80. (New) A method for dampening the frequency response curve of a microphone having a diaphragm separated from a backplate by a spacer element, said microphone having first, second, and third interacting sound chambers, said first sound chamber being substantially defined by walls of said housing and said diaphragm, said second sound chamber being substantially defined between said diaphragm and said backplate, said third sound chamber being substantially defined by said backplate and walls of said housing, said method comprising the steps of:

providing an opening in said backplate; and

adding a second structure to said backplate adjacent to said opening, said opening and said second structure defining an aperture that connects said second and third sound chambers and has selected dimensional characteristics for dampening a frequency response curve for said microphone.